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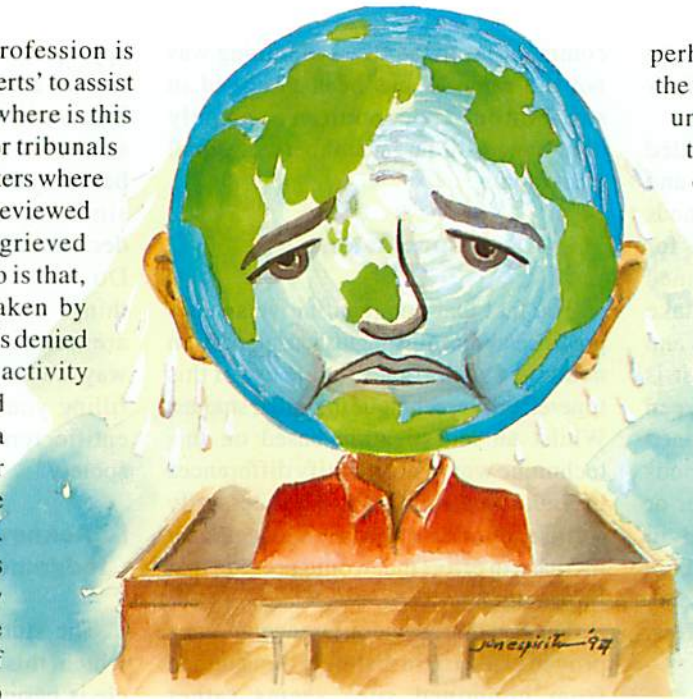
STEVE HILLMAN



Increasingly the legal profession is seeking the input of 'experts' to assist in decisionmaking. Nowhere is this more evident in courts or tribunals assessing environmental matters where administrative decisions are reviewed as a result of appeal by aggrieved parties. The general scenario is that, as a result of a decision taken by a bureaucracy, either a party is denied a permission to carry out an activity or there is objection by a third party to the granting of a permission. Sometimes other parties affected by the decision also join the appeal.

Evidence for the appeal is likely to cover many disciplines ranging from the 'harder' sciences of engineering through to ecology and biology and into the less clearly defined realms of the social sciences and the attendant concepts of amenity and the public commons. Economics will almost certainly be a major consideration. The expert witness is, therefore, expected to assimilate and comment on what may turn out to be a very wide ranging series of reports from a number of other experts from other parties, each with a different slant on the matter to be considered.

Tribunals or courts of appeai can range from being largely inquisitorial, where the evidence from witnesses is largely elucidated by questioning by the decisionmaking body, to being much more adversarial, where information is presented more by examination by the counsel of the party which retained the expert, and cross examination by the opposing party or parties. Examination from 'friendly' parties is also a possible scenario. All parties will be attempting to put the evidence of their own experts in a favorable light and to demonstrate that their experts are more qualified than other experts. To summarize, the expert can be put in a position that has a wide range of comfort zones. He or she may have what amounts to a civilized chat with the decider or, at the other end of the scale, be subjected to rigorous cross examination designed to destroy credibility and status. Be warned, all experts should try to ascertain the position before entering the arena to provide testimony.

Once the report has been tendered before the decider, the expert will be expected to be able both to justify and elaborate upon all aspects of the document. He or she will also be expected to be conversant with **all** other documents that could be relevant to the discipline in question. It is important that whoever is managing the case makes sure that witnesses are adequately briefed so that, not only can they justify their own reports, but also refute reports of other parties. It is also important that points of agreement between reports are also identified since examination by counsel for the parties will almost certainly reveal any inconsistencies in testimony. Other information that should be provided for the witness includes the relevant parts of transcript of the case to date.

In the Witness Box

Presuming that the expert knows his or her field and has been adequately briefed, he or she is confidently prepared to elaborate with a view to enlightening the deciding body and, perhaps, present an unbiased view of the world. It is very difficult to be totally unbiased in this kind of situation and this will be recognized by both the counsel for the party that has retained the witness and opposing counsel. Remember that their task is not necessarily to assist the decider in making the correct decision (what is a **correct** decision after all?) but to assist whoever has retained them to win the case. It is likely that opposing counsel will try to cast as many aspersions as possible upon the expert's degree of expertise, and curricula vitae are a notorious avenue to commence the attack. The expert should be sure that the current c.v. incorporates documentation to support comments that have been made in written reports.

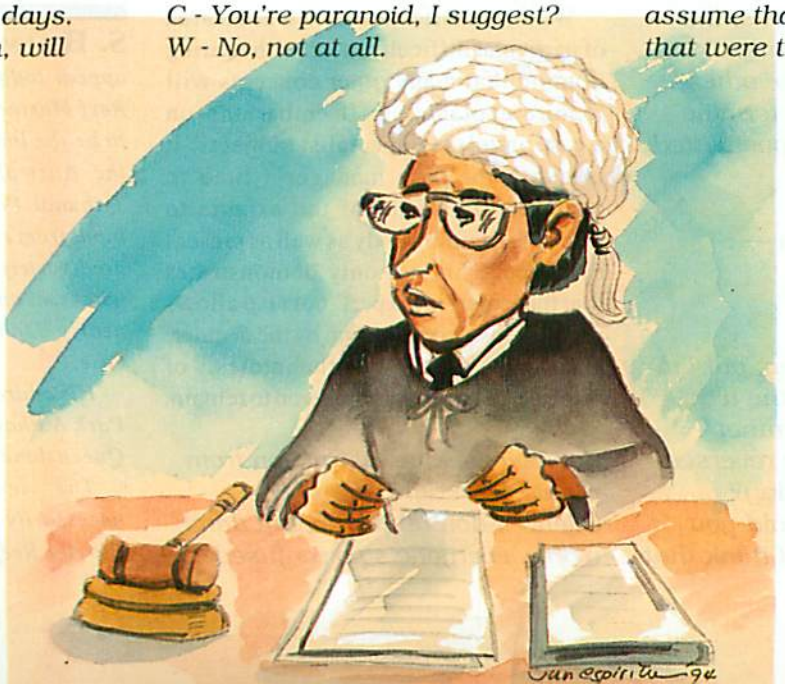
Counsel - All right. Until a moment ago when you added to your list of professional associations the Australian Coral Reef Society, your c.v. did not contain one reference to the word 'coral'. Do you agree with that?
Witness - I will just refer to my c.v...
C - Yes?
W - That seems correct: the word 'coral' doesn't appear to —-
C - Yet you purport to provide a report dealing with corals and the impacts of various items on it?
W - Yes, I am not sure that the former - the answer to the former question bears relevance on the latter.
C - All right. Now which of the areas of professional experience referred to in your c.v. specifically involved coral?
W - In the c.v. before you?
C - Well, that is the only c.v. that we have.
(And so on for many hours)

The expert should remember that although counsel may know very little about the subject in question he or she *can certainly* **appear** to be highly knowledgeable. Experts should be prepared to 'stick to their guns' during cross examination but not to try and elaborate upon areas that are not in their field. If one does not know an answer, say so.

Counsel - And can you give me any indication as to how many more ... would throw up the statistical power that you would regard as acceptable?
Witness - Not offhand, no.
C - You can't give me a clue?
W - No.
C - You come along to court, and criticize somebody else, on the basis that he hasn't done it properly, but you haven't got a clue; not even a clue; as to the number he ought to have used?
W - I am not being paid to design this ... .
C - Don't you know what the word clue means - a hint?
W - No. You asked me to design this ... . I will do that for you if you like. It will take two days.
C - Listen to the question, will you. I asked you for a clue ... ?
W - I am not into clues. I would only be guessing.
C - You couldn't even guess?
W - Well, I could guess, but I am not prepared to guess in here.
C - Is that because you really don't understand what you're talking about? etc., etc.

If one has to think through an answer, think. If confusion appears to be reigning as counsel tries to demonstrate something that you cannot support, ask for the opportunity to explain. The expert should retain confidence but accept his or her limitations. Stay calm.

Counsel - So you are a cynic? You are a cynic after all?
Witness - A cynic about industrial companies and their pollution? Of course, I've worked for a number.
C - That's a fairly extreme view to take, don't you think?
W - No, not at all. It's a very accurate view to take. Very few companies do environmental monitoring and so on because they're altruistic.
C - So, most engineers have predictions that can't be relied upon and most industrial companies are secretive?
W - In the case of companies, I've worked for a number and I know exactly the attitudes they take .
C - Has someone really hurt you in the past or something? Has someone really hurt you in the past for you to have these extreme views?
W - No, I'm just being a realist.
C - You're paranoid, I suggest?
W - No, not at all.



Experts should remember that counsel are also experts in their own fields: the fields of words, filing cabinet type memories and the ability to pursue lines of apparently irrelevant argument that suddenly become relevant. Counsel try very hard not to ask questions that they do not already know the answers to and, if surprised by an answer, will often deviate from the planned cross examination strategy. The deviation, while giving opportunity for the expert to enlighten the gathering, may lead to confusion as counsel come to grips with the situation. It is very important at these times to clearly understand the question that is being asked so that responses are not misunderstood at a later date. At times it will be likely that the expert will have no idea why a question is being asked at all. This could be because of legal implications or counsel trying to make a point that is transparent to the witness.

Counsel - I want you to assume that you're wrong in law regarding (this) as a relevant consideration, under the Heritage Legislation, and I want you to assume that you're wrong in law regarding it as an alternative under the Marine Park Regulations. Just assume for the purposes ... ?
Witness - I find it very difficult to make the second assumption, because I read —.
C - No, no, just a moment. I don't want to debate the assumption with you at the moment. Just assume that for the moment. If that were the correct legal position, would your attitude to this application be any different?

Virtually all practising scientists these days rely to a large extent on statistical analysis to evaluate results. The legal system seems to have great difficulty coming to grips with the concepts of statistics and the fact that virtually all science is based on principles of uncertainty. This is not surprising when

one considers that there are only two standards of proof that western law generally accepts. These are: the concept of proof 'beyond all reasonable doubt' as used in criminal trials and the other concept which relies on 'the balance of probabilities' (essentially 51% or greater probability wins the case) which is used in civil cases. It is even less surprising when considered in conjunction with the general public's perception of science as determining what actually happens in the world as opposed to the likelihood of a set of happenings occurring.

Counsel - Well, the notion that I can't quite understand at the moment is that if we know that we are starting with what we can accept is something certain; that is that sea water doesn't kill prawns, if you have perfect recoveries in both the control and the test tanks, it doesn't matter how many replicates you use if you have 100 per cent recovery in all tanks, the statistical power of the experiment is virtually zero?
Witness - On the contrary, it is virtually one.
C - How could it possibly be when you have no difference in the means?
W - Because a statistical power is a function of a number of things, but two of the critical things is the variation within treatments, the variation from tank to tank, okay, and the other - one of the other critical functions that determine statistical power is the postulated effect, if there is one.
C - Yes?
W - Now in the situation — .

And the next day:

C - Yes. I might be wrong, but I'm not sure that's entirely the way you put it yesterday. I rather thought you might have reversed the descriptions yesterday?
W - Well, I hope not. Could you read that to me again? I think that was correct.
C - 'A type I error involves falsely asserting that an impact had occurred, and a type II error involves failing to detect that an impact had occurred' - sorry, 'an impact that had occurred'?
W - No, I think that's reasonable. I certainly hope it was what I was saying yesterday. I put it in slightly more correct terminology yesterday, in that a type I error occurs when you falsely reject the null hypothesis, and therefore infer that an impact has occurred when in fact it hasn't.

While statistics stands out as an area of particular difficulty, it is worth bearing in mind that many other concepts will require explanation. If embarking on a case involving specialist subjects, it is worth the case manager's time to consider the ability of the experts to teach the deciding body as well as present evidence. This not only demonstrates that the expert is 'expert' but also allows a more considered opinion by the decider. Of course, it may be in the interests of some parties to allow confusion to remain.

Counsel seeking instruction from client - I am right, aren't I?
Client - I don't think so, but don't worry, everyone's so confused now that we've won the point. Let's drop it here and leave things as they appear to stand.

The extent to which this is cleared up is a matter of subjective decision and is largely a matter for the decider. However, to be in the position to assist with education is a strong one.

Burden of Proof

The issue of burden of proof is also worth considering as it may determine the thrust of evidence to be adduced. At one stage in the not so distant past it largely fell to the environmental lobby to demonstrate that an adverse effect would occur. The pendulum is now swinging to the other side and it is becoming more common for the developer to prove (and the standard of proof has yet to be determined in a consistent way in the context of environmental law) that the level of environmental change is acceptable. Certainly the 'precautionary principle' is now well accepted internationally.

All in all, environmental law is still very much in its infancy and the rules of the game are still being determined on a case by case basis.

The real challenge for the expert is to take 'on board' the above and present reports and oral evidence that fit within, what can only be described as, a fluid set of rules.

S. HILLMAN *was case manager for an appeal lodged against the Great Barrier Reef Marine Park Authority. It turned out to be the longest running appeal heard by the Australian Administrative Appeals Tribunal (92 sitting days) and involved input from experts (78 witnesses in all) in a great variety of fields. The exchanges between witnesses and counsel are selected from the nearly 8,000 pages of transcript from the case.*

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The views expressed above do not necessarily represent those of the Great Barrier Reef Marine Park Authority.